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Exploring Determinants in Deploying Mobile Commerce Technology: Amman Stock Exchange

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Abstract

The purpose of this research is to explore the critical determinants that affect the intention of the users to deploy mobile commerce technology in Amman Stock Exchange. This research applied TAM model using the following variables: perceived trust, perceived usefulness, perceived ease of use, social and cultural values, and economic issues. The result of the distributed 210 questionnaires to mobile commerce users in Amman Stock Exchange (Brokers and Investors), and 179 were returned correct and studied, reveal that perceived trust, perceived usefulness, perceived ease of use, social and cultural values have significant association with intention to deploy mobile commerce technology while economical issue is not significant. The results of the research indicate that TAM have capability in exploring critical determinants that affecting the intention to deploy mobile commerce technology in Jordanian marketplace, therefore ,further studies are recommended to explore the critical determinants of deploying mobile commerce technology in other economic sectors.

Keywords: Technology Acceptance models, Mobile commerce Information and Communication Technology.

1. Introduction:

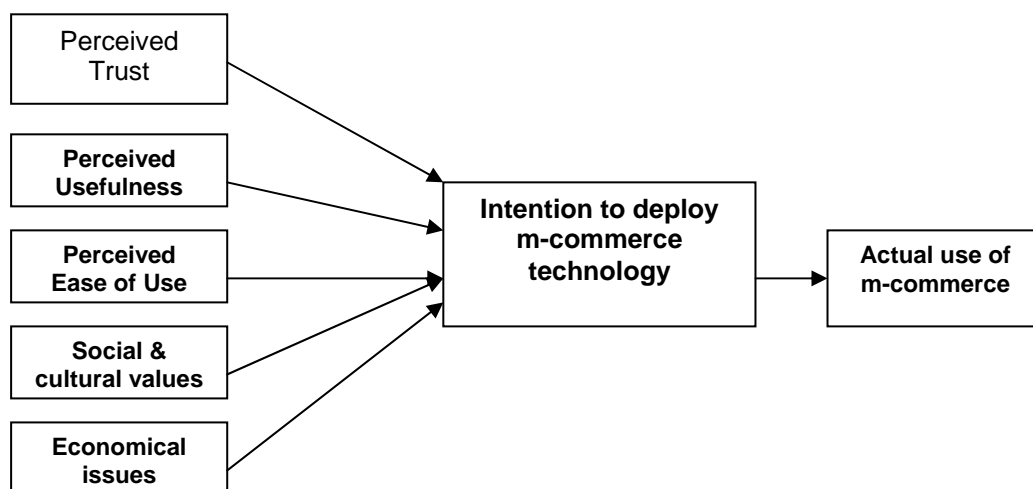
Deploying mobile commerce technology is a very difficult issue, because *m-commerce services* are increasingly large and enhancing enterprises' abilities to offer mobile commerce services anytime and anywhere. However, studies on the use and adoption of mobile services indicate that traditional acceptance models need to be extended and modified when applied to mobile commerce technology. Even though the literature on the adoption and use of mobile commerce technology is quite extensive, surprisingly few studies are found applying adoption models of mobile commerce. The need for exploring critical determinants that actually affect deploying mobile commerce is essential due to explosive growth and penetration of mobile devices worldwide in general and in Jordan in particular due to technological advances, regulatory changes and market demand, which prompted the willingness of the innovators and the organizations to deploy m-commerce. The significance of the research lies in the fact that deploying mobile commerce technology in Jordan represents the first serious trial to understand and explore the critical determinants that affect deploying mobile commerce technology and to understand the social phenomenon accompanied to the spread of mobile commerce. This work aims to present an in-depth study of M-commerce adoption, analyzing the variables which

influence the decision maker's to determine the influence of relations with the characteristics of mobile device and the applications that can be obtained and to identify key drivers of future M-commerce intention in Amman Stock Exchange.

2. Literature Review

The technology acceptance model (TAM) can be traced back to the doctoral dissertation of Davis in 1986. Davis et al. (1989) looked at user acceptance of computer technology by comparing two models those of TAM and TRA (Ajzen 1988; Ajzen and Fishbein; 1980) TAM is tailored to IS context, and was designed to predict IT acceptance and usage. TAM is based on the theory of reasoned action, and theory of planned behaviour Ajzen (1991). TAM postulated that the user acceptance of new technology is determined by their behavioral intention to use the system, which can be explained jointly by user's perception about the technology's usefulness and attitude towards the technology use. Chau (2000) decomposed perceived usefulness into two parts-perceived near term usefulness and perceived long term usefulness, and he found that perceived near term usefulness had the most significant relation with the intention to use a technology, followed by perceived long term usefulness variable. In adoption research, the technology acceptance model focuses on the attitudinal explanations of intention to use a specific technology or service. Although the model is mainly applied to explaining the adoption of technology within organizations, the constructs of the model are meant to be fairly general. Davis et al. also originally described the variables of the model as universal to different types of computer systems and user populations. Thus, the model may be applied to explain users' intentions to use traditional Internet services. Building on the theory of reasoned action model, Davis proposed the technology acceptance model (TAM) in an effort to explain and predict the adoption and use of information technology at work. In 1989, the TAM theorized that perceived usefulness and perceived ease of use were two key determinants of technology adoption. TAM suggests that user adoption of new information systems is determined by user's intention to use the system, which in turn is determined by user's beliefs about the system. According to this model, both perceived usefulness and ease of use influence the attitude of individuals towards the use of technology, while attitude and perceived usefulness of the technology predict the individual's behavior to use the technology. This model has been widely used over the past decade as a means of predicting user's intention to use new technologies. There TAM could be useful in predicting user's intention to adopt new services and applications. Numerous empirical studies have provided support for the proposition that perceived usefulness is the primary predictor of information technology usage (Davis, 1989; Davis *et al.* 1992; Igbaria *et al.* 1997; Gefen and Straub, 1997, 2000; Venkatesh, 2000; Venkatesh and Davis, 2000; Gefen, 2003). O'Cass and Fenench (2003) argue that TAM is appropriate for research areas in electronic commerce applications since electronic commerce is based on computer technology. As scholars indicate that M-commerce is an extension of e-commerce, it is thus justifiable to extend TAM to examine consumer intention to adopt behavior. Unifying the various models of IT acceptance was completed by Vankatesh, Morris, Davis, and Davis (2001, 2002) wherein they integrated the elements of eight prominent models (Theory of Reasoned Action, TAM, Motivational Model, TPB, Combined TAM-TPB, Model of PC Utilization, Innovation Diffusion Theory, Social Cognitive Theory) into a

Unified Theory of Acceptance and Use of Technology (UTAUT).UTAUT provides great promise to enhance understanding of user acceptance. However, the initial UTAUT study focused on large organizations. The UTAUT aims to explain user intentions to use an IS and subsequent usage behavior. The theory holds that four key constructs (performance expectancy, effort expectancy, social influence, and facilitating conditions) are direct determinants of usage intention and behaviour (Venkatesh et. al., 2003). Gender, age, experience, and voluntariness of use are posited to mediate the impact of the four key constructs on usage intention and behavior (Venkatesh et. al., 2003). The theory was developed through a review and consolidation of the constructs of eight models that had employed to explain IS usage behaviour (theory of reasoned action, technology acceptance model, and motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of PC utilization, innovation diffusion theory, and social cognitive theory). Moreover, Prior studies have extended TAM with new constructs such as perceived playfulness, perceived enjoyment and others. It is also widely recognized that subjective norms and perceived behavioral control are important for understanding and predicting intentions and behavior in specific contexts. (Malhotra et al. 1999; chismar et al. 2003; Luran and Lin. 2004; Wang et al. 2003; Chan and Lu. 2004; Shih. 2004; Leung. 2003; Klopping and Mckinney. 2004). Studies of the use and adoption of mobile services indicate that traditional adoption models need to be extended and modified when applied to mobile services.



Source: Prepared by the researchers.

Figure 1. The Proposed Model

Based on the literature discussed, and relations hypothesized between different variables, we constructed a research model depicted in Figure 1, this model is used to test how people and organizations deal with new technology, accept, resist or reject, and potentially influence an individual and organizational adoption decision regarding mobile commerce, because mobile commerce technology is considered the new wave of IT. An extended version of the technology acceptance model was employed to determine factors such as trust, perceived usefulness, perceived ease of use,

social and cultural values, economic issues that influence a decision maker intention to adopt this type of technology in doing business. The model is based on TAM and diffusion of innovations theory and it is augmented with factors that characterize the specific features of mobile services adoption; mobility, personality, ubiquity and others. The main dimensions that the researchers willing to discuss are, considered as control of human behavior, and that affect the adoption of mobile commerce:

Perceived Trust: Is someone's assurance that he or she may predict actions of the third party ,may rely upon those actions ,and those actions will follow a predictable pattern in the future ,especially under risky circumstances and when no explicit guarantee is provided. Trust is considered as a key factor for succeeding in doing e-commerce and m-commerce, trust is major enabler of mobile device transactions because of a natural human need to believe in the social surrounding of the virtual environment

Perceived Usefulness: "The degree to which a person believes that using a particular system would enhance his or her job performance, by ubiquity, convenience localization, personalization, device optimization"(Davis et al., 1989).

Perceived ease of use: "The degree to which a person believes that using a particular system would be free of physical and mental effort"(Davis et al., 1989), freedom from difficulty and effort

Social and cultural trends: Social factors are defined as "an individual's internalization of the reference group's subjective culture and specific interpersonal agreements that the individual has made with others, in specific social situations" (Triandis and Yoon, 1980). Thus, social factors try to capture the congruency between social norms and individual beliefs and how the human part of an individual's environment affects one in performing a specific behavior.

Culture which helps mobile commerce users create a high performance environment and supports the business strategy implementation, since, culture is an important factor for the success of adopting new technology.

The concepts of Social influence have been assessed by social norm and normative believes in both the theory of reasoned action and theory of planned behavior. Individual's thoughts on subjective norms are perceptions on whether they are expected by their friends, family and society to perform the recommended behavior. Social influence is measured by evaluation of various social groups.

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Economic issues: Economics is the social science that studies "mankind in the everyday business of life" (Marshall).

Intention: functions as a predictor of behavior, along with habit and facilitating conditions, and has three precedents, namely affect, social factors and perceived consequences.

Intention is an indication of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. The intention is based on attitude towards the behavior, subjective norm, and perceived behavior control, with each predictor weighted for its importance in relation to the behavior and population of interest.

Actual Use of Mobile Commerce Technology: the actual use means methods and tools that a society has developed in order to facilitate the solution of its practical problems that are taking place in reality, and referring to deploy mobile commerce technology which means, the ability to conduct commerce, using a mobile device (mobile phone, PDA, and other emerging mobile equipment) while on the move, irrespective of the physical location with wireless connections.

Hypothesis

To accomplish the objectives of this research, the following hypothesis will be tested:

H1: Perceived Trust have direct significant effect on m-commerce users' intention to deploy m-commerce technology.

H2: Perceived Usefulness have direct significant effect on m-commerce users' intention to deploy m-commerce technology.

H3: Perceived ease of use has significant effect on m-commerce users' intention to deploy m-commerce technology.

H4: Social and cultural values have direct significant effect on the m-commerce users' intention to deploy m-commerce technology.

For the purpose of this study, the researcher through the literature review regarding TAM model has extracted the variables that may have an effect on mobile commerce users' intention in Jordan marketplace.

The questionnaire was designed of four parts. The first part was denoted for the collection of data about the demographic characteristics of the studied population. The second part was denoted to study the independent variables of the TAM model proposed. Those variables are: perceived trust which the researcher used questions (TQ1-TQ4), perceived usefulness by questions (PUQ1-PUQ4), perceived ease of use by questions (PEOUQ1-PEOUQ4), social and cultural values by questions (SACQ1-SACQ4), and economical issues by (ECQ1-ECQ5). The third part was denoted for data collection about the user's intention of deploying mobile technology by questions (IQ1-IQ4) which works as intermediate variable in the proposed model. The last part was denoted for the data collection about the actual use of mobile commerce technology which was measured by questions (ACTQ1-ACTQ5).

Pilot Test

In this study, a pilot study is conducted model to investigate whether some of the testing model and research methodology developed for the research are suitable or require changing.

Based on the feedback from the pilot study test, a few questions that were not strictly relevant for testing the hypotheses were deleted.

3. Research population

In this study brokers and mobile commerce technology users from Amman Stock Exchange are chosen to conduct study for many reasons:

1. The importance of the role of this type of technology all over the world, and many services can this type of technology provide, and time and place sensitive and especially in Jordanian market.

2. The researched sector is one of the best examples where the relation between study variable and research subject becomes clear.
3. Sincerity of researched sector to use new technology in performing the work to be aware of their work any where any time.

4. Reliability

The results of reliability show that Alpha Cronbach's was 0.7098 for trust variable, 0.663 for usefulness variable, 0.703 for ease of use, 0.7636 for social and cultural values, 0.9033 for economical issues, 0.834 for intention and 0.8184 for actual use (Table 1). The values of Alpha Cronbach's for each variable were higher than 0.6, which is the acceptable value for such research (Sekaran, 1992). This reflects the reliability of this questionnaire and the results are reliable too for this research.

Model validity

For this purpose, factor analysis can be used for defining indicator of the model, defining the dimensions underlying existing measurement instruments, determining what items or scales should be included on or excluded from a measure, explain the interrelation between these factors and to check the model validity analysis. In this study, summative scale technique was used to merge several sub factors into a single factor by calculating average scale of each factor (Hair et al, 1995). Factor Analysis was used applying Varimax procedure and Eigen value more than one. When the loading factor is more than 0.40 (Hair et al, 1995), then the paragraph is valid to measure the variable.

Eigen value determines the accepted factors, Kaiser –Meyer- Olkin (KMO) measured the fitness of using factor analysis for this data. The value of KMO was more than 0.50 reflecting the fitness of factor analysis for this data, KMO measure provides a means to asses the extent to which the variables of the model belong together. Loading factor and explained variance were used to measure the validity of each construct as shown in table (1).

Variable	Loadi ng factor	Explain ed variance	KMO	Eigen value	Cronb ach's Alpha
Trust	0.880	49.086	0.597	1.963	0.710
	0.863				
	0.606				
	0.279				
Usefulness	0.736	50.023	0.671	2.001	0.663
	0.799				

Variable	Loadi ng factor	Explain ed variance	KMO	Eigen value	Cronb ach's Alpha
	0.747				
	0.512				
Ease of Use	0.747	53.273	0.616	2.131	0.703
	0.760				
	0.727				
	0.682				
Social and cultural issues	0.772	59.334	0.737	2.373	0.763 6
	0.871				
	0.801				
	0.614				
Economica l issues	0.839	63.866	0.847	3.193	0.903 3
	0.899				
	0.871				
	0.893				
	0.355				
Intentions	0.841	66.908	0.794	2.676	0.834
	0.816				
	0.830				
	0.783				
Actual use	0.792	58.748	0.770	2.937	0.818
	0.813				
	0.812				

Variable	Loading factor	Explained variance	KMO	Eigen value	Cronbach's Alpha
	0.763				
	0.640				

Table 1. Construct validity of research variables

The respondents were closed in their predominantly positive intention toward using mobile commerce technology and actual use. Most of the respondents tended to choose agree regarding to all the variables that the researcher included in his modified TAM model. The analysis of the correlations results showed that there are significant positive relationships between all the variables associated to each others.

5. Sample Characteristics

The number of questionnaires that were distributed as follows: 55 for brokers and 155 for investors. The number of recovered questionnaires was 49 for brokers and 136 for investors. The total number of recovered questionnaires was 185. The number of questionnaires were excluded due to their incompleteness was 6. The final number of questionnaires were used in analysis was 179 with a percentage 85.2% of the distributed.

Business	Distributed	Returned	Utilized	Percentage
Brokers	55	49	47	85%
Investors	155	136	132	85%
Total	210	185	179	85%

Table 2. Questionnaire distribution and responding

Sample Demographic characteristics

From table 3 the backgrounds of respondents of mobile commerce technology users were studied in terms of gender where 81% of the respondents are male and 19% are female.

Referred to table the sample study contains 179 respondents in terms of age, 23% of the respondents were from 20 to 30 years old, 25% of the respondents were from 31 to 40 years, 17% of the respondents were 41 to 50 years and 35% of the respondents were from 51 to 60 years old. Age has been the most widely applied demographic variable characterizing differences in adoption of mobile commerce technology.

Referred to table, the sample study contains 179 respondents regarding to the monthly income of the respondents, where 52% of the respondents their monthly income is between 500 and 1000 JD, 23% between 1001 and 2500 JD, 13% of the respondents were between 2501 and 4000 JD and 12% of the

respondents were between 4001 and 7000 JD .

Referred to the table 4.4, the educational level results of the respondents shows that 52% of the respondents had a BA degree, while 20% had MA degree, 3% of the respondents had PhD degree, and 25% from the respondents had others qualifications.

The samples studied from table, contain 179 respondents, in accordance to the experience of the respondents that had from 0-5 years of experience were 27%, 22% of the respondents were had from 6 to 10 years experience, 18% of the respondents were had from 11 to 15 years of experience, and from 16 to 20 years of experience of the experience were 33%.

Referred to the table 3, the sample study contains 179 respondents in terms of job title, where 46% of the respondents are brokers and 54% of the respondents were mobile commerce users (investors).

Character	Frequency	Percentage
Gender		
Male	146	81%
Female	33	19%
Age		
20-30 Years	42	23%
31-40 Years	46	25%
41-50 Years	31	17%
51-60 Years	60	33%
Income		
500-1000 JD	93	52%
1001-2500 JD	42	23%
2501-4000 JD	23	13%
4001-7000 JD	21	12%
Education		
BA degree	94	52%
MA degree	37	20%
PhD degree	4	3%
Others degree	44	25%
Experience		
0-5 years	48	27%
6-10 years	40	22%
11-15 years	31	18%

16-20 years	60	33%
Type of Business		
Brokers	83	46%
Investors	96	54%

Table 3. Characteristics of Respondents

6. Hypotheses Testing

To accomplish the objectives of this study, hypotheses should be tested to find out the relationship between variables. These tests as follow:

First Hypothesis:

H1: Trust will have direct significant effect on m-commerce users' intention to deploy m-commerce technology.

The testing result of the analysis is as follow:

$$Y = 1.963 + 0.420 X$$

$$(t=5.854 \text{ with significance}= 0.001) \quad (t=1.96 \text{ tabulated})$$

$$R^2 = 0.113$$

$$F = 22.50 \quad (F=2.34 \text{ tabulated})$$

Where;

Y: Intention to deploy m-commerce technology

X: Trust of using m-commerce technology

Perceived trust explained 11.3% of the effect on the user's intention of deploying mobiles commerce technology. The Trust effect on the user's intention to deploy mobile commerce was significant with probability 0.001 (<0.05).

The regression analysis of the user's intention and trust of using m-commerce shows that increasing trust of m-commerce users affect positively the user's intention to deploy m-commerce technology by brokers and investors.

The above equation suggests that the increase of trust by one unit will increase the intention of deploying mobile commerce technology by 0.42

Second Hypothesis

H2: Perceived usefulness has significant effect on the intention of mobile commerce user's to deploy m-commerce technology

The testing result of the analysis is as follow:

$$Y = 1.804 + 0.471 X$$

$$(t=5.854 \text{ with significance}= 0.001) \quad (t=1.96 \text{ tabulated})$$

$$R^2 = 0.162$$

$$F = 34.72 \quad (F=2.34 \text{ tabulated})$$

Where:

Y: Intention to deploy m-commerce technology

X: Perceived usefulness to deploy m-commerce technology

Perceived usefulness explained 16.2% of the effect on the user's intention of deploying mobile commerce technology. The effect of usefulness is significant with values 0.001. This means that perceived usefulness has considerable effect on user's intention of deploying m-commerce.

The above equation suggests that the increase of usefulness by one unit will increase the intention of deploying mobile commerce technology by 0.471. There is a positive effect of perceived of usefulness on the user's intention to deploy mobile commerce technology.

Third Hypothesis

H3: Perceived ease of use has a significant effect on the m-commerce users' intention to deploy m-commerce technology.

The testing result is as follows:

$$Y = 2.007 + 0.413 X$$

(t=5.296 with significance= 0.001) (t=1.96 tabulated)

$$R^2 = 0.137$$

$$F = 28.05 \quad (F = 2.34 \text{ tabulated})$$

Where;

Y: Intention to deploy m-commerce technology

X: Perceived ease of use to deploy m-commerce technology

The increase of perceive ease of use by one unit will improve the intention of deploying mobile commerce technology by 0.413. This means that there is a positive relationship between perceive ease of use on the user's intention to deploy mobile commerce. This relation is highly significant with probability value equal 0.001; ease of use explains 13.7% of the user's intention to deploy mobile commerce technology.

The above equation suggests that the increase of perceived ease of use by one unit will increase the intention of deploying mobile commerce technology by 0.41.

Fourth Hypothesis

H4: Social and cultural values have significant effect on the m-commerce users' intention to deploy m-commerce technology.

The testing result is as follows:

$$Y = 2.460 + 0.301 X$$

(t=2.697 with significance= 0.008) (t =1.96 tabulated)

$$R^2 = 0.039$$

$$F = 7.271 \quad (F = 2.34 \text{ tabulated})$$

Where;

Y: Intention to deploy m-commerce technology

X: Perceived social and cultural values that affect the user's intention of deploying mobile commerce

technology

Perceive social and cultural values have the lowest effect on the user's intention of deploying mobile commerce technology. This is resulted of the low perceive of the social and cultural values. The increase of perceive of social and cultural values will affect the intention of deploying mobile commerce technology significantly ($p < 0.01$), despite the low explanation of this variable for the intention of deploying mobile commerce.

The above equation suggests that the increase of social and cultural values by one unit will increase the intention of deploying mobile commerce technology by 0.30.

Fifth Hypothesis

H5: Economical issues have a significant effect on m-commerce intention to deploy m-commerce technology

The testing result is as follows:

$$Y = 3.298 + 0.069 X$$

$$(t=0.782 \text{ with significance}= 0.435) \quad (t=1.96 \text{ tabulated})$$

$$R^2 = 0.003$$

$$F = 0.612 \quad (F=2.34 \text{ tabulated})$$

Where;

Y: Intention to deploy m-commerce technology

X: Perceived economical issues on the user's intention to deploy m-commerce technology.

The economical issues do not affect the user's intention of deploying mobile commerce because brokers and investors did not find that deploying of mobile commerce technology is related to economical issues, but it is related to other factors such as perceived trust, perceived usefulness, perceived ease of use, social and cultural values, and other factors that are not mentioned in our study. So, the relationship between economical issues and user's intention is not significant ($p > 0.05$).

The above equation suggests that the increase of economical issues by one unit will increase the intention of deploying mobile commerce technology by 0.069.

Sixth Hypothesis

H6: Intention to deploy m-commerce technology has a significant effect on the actual use of m-commerce users.

The testing result is as follows:

$$Y = 2.044 + 0.409 X$$

$$(t=6.091 \text{ with significance}= 0.001) \quad (t=1.96 \text{ tabulated})$$

$$R^2 = 0.173$$

$$F = 37.105 \quad (F=2.34 \text{ tabulated})$$

Where;

Y: Actual use of m-commerce technology

X: Intention to deploy m-commerce technology

User's intention to deploy mobile commerce technology affects positively the actual use of mobile commerce. This effect is positive and significant ($p < 0.001$). The change in the user's intention explains 17.73% of the change in the actual use of mobile commerce.

The above equation suggests that the increase of user's intention to deploy mobile commerce by one unit will increase the intention of deploying mobile commerce technology by 0.409.

To consolidate and reinforce the previous results the researcher used multiple and step wise regression tests to examine the effect of the independent variables collectively on the user's intention of deploying mobile commerce technology, the results were as follows:

1. Stepwise regression testing:

$$Y = 1.804 + 0.471 X$$

$$R^2 = 0.162$$

$$F = 34.272$$

Where;

Y: Intention to deploy m-commerce technology.

X: Perceived usefulness.

And:

$$Y = 1.424 + 0.238 X$$

$$R^2 = 0.194$$

$$F = 21.193.$$

Y: Intention to deploy m-commerce technology.

X: Perceived ease of use.

From the result obtained we conclude that user's intention to deploy mobile commerce technology affected positively from both perceived usefulness and perceived ease of use. This effect is positive and significant ($p < 0.001$). The change in perceived usefulness explains 16.2%, and perceived ease of use explains 19.4% of the change in the user's intention to deploy mobile commerce.

The above equation suggests that the increase of usefulness and ease of use by one unit will increase the user's intention of deploying mobile commerce technology by 0.403 and 0.441 respectively.

2. Multiple regressions

The testing result is as follows:

$$Y = 1.207 - 0.287X_1 + 0.565X_2 + 0.227X_3 + 0.098X_4 - 0.036X_5$$

$$R^2 = 0.208$$

$$F = 9.08$$

Y: Intention to deploy m-commerce technology.

X1: Perceived Trust,

X2: Perceived usefulness,

X3: Perceived ease of use,

X4: Social and cultural values,

X5: Economical issues

The result of multiple regression analysis shows that only significance is less than 0.05 for perceived

usefulness and perceived ease of use.

From the result obtained by applying multiple regression, we conclude that user's intention to deploy mobile commerce technology was affected positively from both perceived usefulness and perceived ease of use.. The change in perceived trust, perceived usefulness, perceived ease of use, social and cultural values, and economical issues explains 20.8%, of the change in the user's intention to deploy mobile commerce.

The results also indicate that perceived usefulness and perceived ease of use were positively and significantly affected the user's intention of deploying mobile commerce

The result of present study coincides with the original TAM and TAM2 model applied in technology usage the end users of mobile commerce technology. (Malhotra et al.1999, Chismar et al.2003; Tariq Bhatti; 2007, Yang,C.C.Kenneth,2005; Ikart, 2005; Ikart Emmanuel Matthew,2005, Szajna1996, Lurn and Lin 2004; Wang et al.2003; Chan and Lu 2004; Shih 2004; Klopping and McKinney 2004; Leung,2003).

Also the same results were obtained when applying multiple and step wise regressions except for trust variable which is in contrary of our expectation, the results were different when applying multiple and step wise regressions for both perceived trust and social and cultural values, these are contrary to our expectation gave negative result, that means perceived trust has no significant effect on the user's intention to deploy mobile commerce technology as well as social and cultural values.

It can be concluded the proposed TAM model is consistent and applicable in the Middle East countries. Perceived usefulness and Perceived ease of use can explore the determinants of mobile commerce and were predominant however trust and social and cultural values were dropped out upon application of multiple and step wise regression.

Emerging new technology and success of deploying mobile commerce still depends of the end users of mobile commerce technology.

7. Findings, Conclusions, and Recommendation

The present research, however, does not intend to examine the whole range of factors influencing mobile commerce technology adoption, it was concerned with analysing specified factors that affect the mobile commerce users' intention to adopt mobile commerce technology in Jordanian marketplace .These are perceived trust, perceived usefulness, perceived ease of use, social and cultural values, and economical issues on the user's intention of deploying mobile commerce technology by identifying, improving ,and understanding the critical determinants that affect the user's intention to deploy and actual use of mobile commerce.

In most cases, mobile commerce technology users' adoption was much slower than originally anticipated, this trend is often attributed to technological limitations, security issues, and significant economic investments associated with implementing mobile commerce technology (Deans, 2002). Despite those issues that must be overcome, the main reason for the lack of mobile commerce users adoption stems from the fact that current mobile applications fail to deliver a sufficiently compelling value proposition to corporate decision makers (Heck, 2004). The results of this study found that

brokers and investors are not completely satisfied with the benefits achieved by deploying mobile commerce which similar to Deans (2002) and Heck (2004) results.

The multitude of different criteria illustrates the complexity of mobile commerce technology adoption and implementation decisions, the complexity is further amplified when the technology is starting to emerge as its value is often poorly understood, this is clearly the case with deploying mobile commerce technology in Amman Stock Exchange in Jordan marketplace.

The finding generally suggests that all aspects of TAM model could be generalized across cultures.

The low perceive was represented by trust, social and cultures values, and economic issues on the user's intention to deploy mobile commerce technology. This indicates that the financial aspects, influencing coworkers, the product doesn't deserve the use of mobile commerce technology; security issues do not represent an obstacle of using mobile in m-commerce in Amman Stock Exchange. In other words, deploying m-commerce is related to other factors which are not mentioned in our study and it might be subjects for other researchers such as security issues, technological aspects and others.

The results of the first hypothesis show that perceived of trust has no significant effect on mobile commerce users' intention to deploy mobile commerce technology when multiple regression has been applied , in contrary to our expectation when multiple regression has been applied, no effect of perceived of trust variable on the user's intention to deploy mobile commerce technology in Jordanian environment, which means that the low effect has been overcome by other factors , in addition to social and cultural values, and economical issues.

The results suggest that the more perceived of trust in mobile commerce technology; specifically the availability of laws, policies and regulations for deploying mobile commerce technology, the more in increasing of the users' intention to deploy mobile commerce technology within Jordanian environment.

The results of the second hypothesis when applying multiple regression show that perceived usefulness has positive relationship with the user's intention to deploy mobile commerce technology, The results of our research is consistent with many previous studies that focused on the acceptance and use of new technology, and have provided support for the proposition that perceived usefulness is considered as one of the primary predictor of mobile commerce technology usage (Davis, 1989; Davis et al., 1992; Igbaria et al., 1997; Gefen and Straub, 1997, 2000; Venkatesh, 2000; Venkatesh and Davis, 2000; Gefen, 2003). The results also suggest that the more perceived of usefulness of mobile commerce users, the more in the user's intention to deploy mobile commerce technology, which may be a shift in users' perceptions of mobile commerce usage and the development in information and communication technology, also enhancement of users' productivity, efficiency/effectiveness, and the availability of data needed to do business.

The results of the third hypothesis testing show that perceived ease of use has a more powerful and consistent predictor than perceived usefulness towards user's intention to deploy mobile commerce technology when applying multiple regressions. Perceived usefulness and perceived ease of use have offered opportunity not only for extending TAM model to be applied in the Middle East environment but also for involvement of mobile commerce industry ,therefore developing strategies partnership with brokers and investors.

The results of our study is consistent with many previous studies that focused on the acceptance and use of new technology and the result of their studies demonstrated that perceived ease of use has a positive correlation with behavioral intention. (Davis, 1989; Gefen and Straub, 1997, 2000; Venkatesh, 2000; Venkatesh and Davis, 2000; Gefen, 2003).

The economical issues have no significant relationship towards the user's intention of deploying mobile commerce for multiple regression analysis. A possible explanation of these findings is that the stability of the legislative environment for economic issues, in addition to the interest rate, the cost of transaction and the income of the mobile commerce users affects their planning to deploy m-commerce technology in Jordanian environment.

The results of the sixth hypothesis show that user's intention to deploy mobile commerce technology in Jordanian market place has positive relationship with the actual use of mobile commerce. These results are consistent with many previous studies that focused on the acceptance and use of new technology (Davis and Davis, 1990; Davis, 1993; Thompson et al. 2000; Compeau and Higgins, 1995). From the results we can draw several conclusions. First, the results suggest that the more perceived usefulness and perceived ease of use of mobile commerce technology, the more in user's intention to deploy mobile commerce users technology by time saving and enhancement of their relationship with the customers without any constraints of time and place also mobile commerce users were more likely be influenced by impact of improving job performance and increasing the effectiveness and efficiency of their work.

Conclusions:

The current research represents one of the first empirical efforts for eliciting, analyzing, specifying and exploring critical determinants such as: (perceived trust, perceived usefulness, perceived ease of use, social and cultural values, and economical issues) on the user's intention of deploying mobile commerce technology on the Jordanian marketplace, by incorporating variables from technology acceptance /adoption models. The finding of this study are supportive of the fact that more usefulness and more of ease of use of mobile commerce technology are more likely affect the user's intention of mobile commerce technology adoption. This indicates that mobile commerce is perceived to be high in instrumentality leading higher acceptance /adoption rate. The result in coincide of other studies, and the link between those two determinants in agreement with the prior study. (Davis, 1989, Davis et al. 1989; Venkatesh and Davis, 2000). However, in contrast to the prior research which have been found that perceived of trust, social and cultural values, and economical issues have no effect on the intention of mobile commerce users.

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